AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-34. (Canceled)

35. (Currently Amended) A method of measuring transmission characteristics of radio channels in a radio communications system having base stations and a radio station, the radio communications system utilizing a timeslot structure in a time frame for transmitting data, the method comprising:

transmitting the data as bursts from a first of the base stations to the radio station, each burst having a channel measurement sequence and room for at least one data block, the first of the base stations transmitting a channel measurement sequence in at least one timeslot in which only the channel measurement sequence, and in which no data ~~and no signaling information,~~ is transmitted from the first of the base stations to the radio station, wherein the room for the at least one data block is empty in the at least one timeslot.

36. (Currently Amended) The method of claim 35, wherein the channel measurement sequence transmitted by the first of the base stations is transmitted ~~using~~ at ~~least one of (i)~~ a constant power level ~~and (ii) a number of base stations transmitting at the same time~~.

37. (Currently Amended) The method of claim 35, wherein the channel measurement sequence transmitted by the first of the base stations is transmitted in the middle of a burst.

38. (Previously Presented) The method of claim 35, wherein the base stations are synchronized.

39. (Currently Amended) The method ~~as claimed in~~ of claim 38, wherein cyclic correlation is used for channel measurement.

40. (Currently Amended) The method of claim 39, wherein ~~individual~~ different base stations ~~use~~ transmit a same channel measurement sequence.

41. (Currently Amended) The method of claim 40, wherein the same channel measurement sequence is transmitted with a different code phase by different base stations.

42. (Previously Presented) The method of claim 35, wherein a channel measurement sequence in a predetermined timeslot in the time frame has an identifier.

43. (Currently Amended) The method of claim 42, wherein a same channel measurement sequence is used in the predetermined timeslot as is used in other time slots in the time frame, and wherein phase modulation is used in the same channel measurement sequence in the predetermined timeslot.

44. (Currently Amended) The method of claim 43, wherein 180° phase modulation of the same channel measurement sequence is used in the predetermined timeslot from one time frame to a next time frame.

45. (Previously Presented) The method of claim 42, wherein the predetermined timeslot is a 0-th timeslot.

46. (Previously Presented) A radio communications system having a number of base stations and at least one radio station which uses the method of claim 35.

47. (Previously Presented) The radio communications system of claim 46, wherein the radio communication system is a TDD radio communication system.

48. (Previously Presented) The radio communications system of claim 46, wherein the radio communication system is a FDD radio communication system.

49. (New) The method of claim 35, wherein the channel measurement sequence transmitted by the first of the base stations is also transmitted by at least one other base station.